

Basic Workplace Competencies

AREA 1: Solving Problems and Thinking Skillfully

All individuals, regardless of their career choice, must be able to think and solve problems. They need to be able to initiate action on their own, and direct and modify their own work according to the task at hand. The following competencies specify the knowledge, skills and attitudes necessary for development of the capacity to assess problems and situations, anticipate what might happen next, and continuously search for creative solutions.

Competency -

The student will be able to:

Key Indicators

1.1

Solve problems and make decisions in work-related situations

- 1.1.1 Identify factors that influence problem solving and decision making
- 1.1.2 Analyze the source of the problem or the situation requiring a decision
- 1.1.3 Generate possible alternatives
- 1.1.4 Analyze possible alternatives
- 1.1.5 Match problem-solving and decision-making processes to the situation
- 1.1.6 Use creative thinking processes to support solving problems and making decisions
- 1.1.7 Justify solution or decision with evidence to support or refute alternatives
- 1.1.8 Formulate action plans
- 1.1.9 Implement action plans
- 1.1.10 Evaluate action taken
- 1.1.11 Monitor action plans
- 1.1.12 Adjust action plans as needed

1.2

Read for information and understanding

- 1.2.1 Locate needed information in written materials using formatting cues, skimming, and scanning
- 1.2.2 Interpret written information, including manuals, graphs, and schedules
- 1.2.3 Unlock the meaning of unknown or technical vocabulary using standard strategies (e.g., context clues, prefixes, suffixes)
- 1.2.4 Locate key points, main ideas, relevant details, facts, and specifications in written materials
- 1.2.5 Judge the accuracy, appropriateness, style, and plausibility of information, proposals, or theories in materials read

The student will be able to:**Key Indicators****1.3
Use observation skills to
analyze work-related
situations**

- 1.3.1 Collect data through sensory perceptions - seeing, hearing, tasting, touching, and smelling
- 1.3.2 Identify predictable patterns and relationships in given situations
- 1.3.3 Monitor situations for changes
- 1.3.4 Identify patterns and relationships that create doubt, uncertainty, difficulty, or disappointment
- 1.3.5 Devise appropriate responses to given situations
- 1.3.6 Apply past observations to present work-related situations

**1.4
Apply mathematical
processes**

- 1.4.1 Solve mathematical problems involving whole numbers and integers
- 1.4.2 Solve mathematical problems involving fractions, mixed numbers, decimals, percentages, ratios, and proportions
- 1.4.3 Apply systematic counting techniques and logical thinking to represent, analyze, and solve problems
- 1.4.4 Use estimates to determine reasonableness of proposed problem solutions
- 1.4.5 Use appropriate technology in the solution of math-related problems
- 1.4.6 Describe problem situations using numerical, symbolic, and graphical representations
- 1.4.7 Apply combinations of algebraic techniques
- 1.4.8 Represent problem situations with geometric models (including applying the properties of figures)
- 1.4.9 Express mathematical ideas orally and in writing

**1.5
Apply measurement and
spatial skills**

- 1.5.1 Demonstrate knowledge of units of measurement
- 1.5.2 Select measurement techniques appropriate for given situation
- 1.5.3 Match measurement tools to measurement requirements
- 1.5.4 Determine degree of accuracy required for given situation
- 1.5.5 Analyze implications of the degree of accuracy of various measurements

**1.6 Apply statistical
analysis skills**

- 1.6.1 Estimate probability using standard techniques and formulas
- 1.6.2 Analyze software options available for statistical data using selected software

The student will be able to:**Key Indicators****1.6 Apply statistical analysis skills**

- 1.6.3 Make inferences or predictions based on data analysis
- 1.6.4 Represent statistical data using tables, charts, and graphs

1.7 Analyze critical data to guide work activities

- 1.7.1 Identify critical data needed
- 1.7.2 Determine the level of detail necessary for various situations according to prescribed procedures (including task analysis; procedural analysis; financial activities; personnel matters; customer contacts; noncompliance and violations; and/or deviations from normal operation of processes, equipment and instrumentation)
- 1.7.3 Ensure that documentation is complete and error-free and provides valid and reliable evidence
- 1.7.4 Ensure that documentation is in compliance with established procedures
- 1.7.5 Analyze documentation to determine appropriate actions for specific situations

1.8 Utilize scheduling techniques to ensure that jobs are completed by the stated due date

- 1.8.1 Develop schedules for equipment maintenance
- 1.8.2 Develop schedules for materials production, handling, and distribution
- 1.8.3 Develop meeting schedules
- 1.8.4 Distribute schedules to all concerned personnel
- 1.8.5 Implement schedules as planned
- 1.8.6 Make changes in schedules as appropriate

1.9 Demonstrate knowledge of the economy and how it functions as a whole

- 1.9.1 Analyze how individuals and societies make choices to satisfy wants with limited resources
- 1.9.2 Analyze how factors of production (including land, labor, capital, and entrepreneurship) are used to produce goods and services
- 1.9.3 Analyze how individuals and households exchange their resources for income in order to buy goods and services
- 1.9.4 Analyze how individuals and business firms use resources to produce goods and services to generate revenue
- 1.9.5 Identify the characteristics of command, market, and traditional economies
- 1.9.6 Analyze how all levels of government assess taxes in order to provide services

The student will be able to:

Key Indicators

1.10

Demonstrate knowledge of the economy as a framework within which decisions are made by individuals and groups

- 1.10.1 Determine opportunity costs and trade-offs
- 1.10.2 Identify key individuals and groups that make economic decisions at the local, state, national, and international levels
- 1.10.3 Identify the important roles that local, state, national, and international governments play in a global economy
- 1.10.4 Characterize how government decisions affect individuals
- 1.10.5 Identify how geographic factors affect the political and economic systems of other countries
- 1.10.6 Analyze how national and international markets allocate goods and services
- 1.10.7 Analyze how resources, goods, and services, are exchanged in national and international markets
- 1.10.8 Demonstrate knowledge of competition and how it affects national and international markets
- 1.10.9 Demonstrate knowledge of supply and demand and how it affects national and international markets